AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A light producing and monitoring system comprising:

a light producing device from which light is emitted with wavelengths that can range from approximately 700nm to approximately 3 microns; and

a semi-transparent sensor manufactured on a semi-transparent substrate separate from the light-producing device, the semi-transparent substrate bonded to the light-producing device to position the light-producing device ~~at a position~~ where the semi-transparent sensor is located in front of the light producing device, at least a portion of the emitted light passes through the semi-transparent sensor and at least a portion of light is absorbed by the semi-transparent sensor, wherein the semi-transparent sensor is configured to be semi-transparent at the wavelength of the emitted light.

2. (Previously Presented) The system according to claim 1 wherein the semi-transparent substrate is a quartz substrate.

3-4. (Cancelled)

5. (Previously presented) The system according to claim 2 wherein the light producing device and the substrate are connected together by a flip-chip process.

6. (Original) The system according to claim 2 wherein the sensor configured on the substrate includes,

a first transparent/conductive electrode layer;

an active sensor element configured on top of the first

transparent/conductive electrode; and

a second transparent/conductive electrode layer.

7. (Original) The system according to claim 6 wherein,

the active sensor element is configured of sub-layers including,

a first sub-layer consisting of at least one of a n+ doped amorphous silicon or an amorphous silicon-germanium compound,

a second sub-layer consisting of at least one of intrinsic amorphous silicon or an amorphous silicon-germanium compound, and

a third sub-layer consisting of at least one of a p+ doped amorphous silicon or an amorphous silicon-germanium compound.

8-15. (Cancelled)

16. (Previously Presented) A light producing and monitoring system comprising:

a light producing device from which light is emitted with wavelengths that can range from approximately 1.3 microns to approximately 3 microns;

a semi-transparent substrate;

a semi-transparent sensor configured on a first surface of the semi-transparent substrate including,

a first transparent/conductive electrode layer comprised of at least one of, Indium Tin Oxide, Tin Oxide, Zinc Oxide, or polycrystalline silicon;

an active sensor element is configured of sub-layers including,

a first sub-layer consisting of at least one of a n+ doped amorphous silicon or an amorphous silicon-germanium compound;

a second sub-layer consisting of at least one of intrinsic amorphous silicon or an amorphous silicon-germanium compound; and

a third sub-layer consisting of at least one of a p+ doped

amorphous silicon or an amorphous silicon-germanium compound,

a second transparent/conductive electrode layer comprised of at least one of, Indium Tin Oxide, Tin Oxide, Zinc Oxide, or polycrystalline silicon;

the semi-transparent sensor located in front of the light producing device, such that at least a portion of the emitted light passes through the semi-transparent sensor and at least a portion of light is absorbed by the semi-transparent sensor, and wherein the semi-transparent sensor is configured to be semi-transparent at the wavelength of the emitted light.

17-18. (Cancelled)

19. (Previously Presented) The system according to claim 2, wherein the substrate includes a micro-lens formed opposite the side on which the sensor is configured, to refocus the light after passing through the sensor, wherein the light emitting device, the sensor and the micro-lens are aligned to permit the emitted light to pass there through.

20. (Previously Presented) The system according to claim 2, wherein the sensor configured on the substrate includes an anti-reflection coating.